

### REMARKS

Applicant has carefully reviewed the Office Action of 10 April 2002 and presents the following response.

Initially, Applicant has noted several typographical errors in the specification that are corrected. No new matter is added, but the specification is more suitable for publication and/or allowance. If the Patent Office notes further minor errors in the specification, the Examiner is invited to contact the undersigned by telephone so that they may be addressed expediently.

Applicant further amends the claims to provide the correct dependencies. Claim 1 is a method claim; claim 2 is a system claim. As presented, several method claims depended from claim 2. Applicant herein corrects the dependencies of claims 3-5 to depend from claim 1. No new issues should be raised by this amendment.

Before addressing the merits of the rejection, an overview of the invention may be in order to help set forth the context of the response. The present invention is part of a holistic accounting process which is designed to monitor events within a network so that billing may be achieved thereby. The present invention focuses on the part of the specification disclosed on pages 37-40. To help assure the integrity and accuracy of the system, the data collectors associated with the network devices transmit the accounting records to the flow aggregation process and wait for an acknowledgment signal to be sent before discarding the local copies of the accounting records. Further, to help guarantee that the accounting records are processed, the data collectors send the accounting records to two flow aggregation processes. If one flow aggregation process has an error, the accounting records from the other flow aggregation process are directed to the accounting module. This redundancy reduces the likelihood of errors that cause billing opportunities to be foregone. Important is the fact that the first and second flow aggregation processes are distinct from one another to help provide the needed redundancy.

Claims 1-23 were rejected under 35 U.S.C. § 103 as being unpatentable over Reeder. Applicant respectfully traverses this rejection. For an obviousness rejection to be proper, the reference or combination of references must teach or fairly suggest each claim element. MPEP § 2143.03. Applicant acknowledges that the Patent Office is entitled to give claim elements their broadest reasonable interpretation when finding elements in the references. There are two limits on this entitlement. The first limitation is within the standard itself. The interpretation must be *reasonable*. The second limitation is that when a term is defined in the specification, that

definition trumps the broadest reasonable interpretation that the Patent Office would otherwise be entitled to use. MPEP § 2111.01.

When the claim elements are given the definitions provided in the specification where appropriate, and when the other elements are given a *reasonable* broadest interpretation, the claim elements are not shown or fairly suggested by the reference and the claims are not obvious over the reference.

The specification defines a data collector at page 14, lines 24-29. The specification also defines a network device at page 5, lines 21-28. The specification further defines a flow aggregation process at page 8, line 24-page 9, line 8. These definitions trump the broadest reasonable interpretation to which the claim elements might otherwise be entitled.

#### **Claims 1 and 3-9**

Claim 1 claims transmitting the accounting records to first and second flow aggregation processes. Further, (for each flow aggregation process,) the data collector awaits for an acknowledgment signal before discarding the accounting records sent to that flow aggregation process. These two elements are not taught or suggest by the reference.

The first element - sending the accounting records to two flow aggregation processes - is clearly not taught or suggested by the reference of record. The Patent Office is silent as to what constitutes the first flow aggregation process and what constitutes the second flow aggregation process. This is because the reference, at best, sends the data to a single flow aggregation process - namely the event collector server. Sending the data to a single event collector server is not a reasonable interpretation for sending the accounting records to first and second flow aggregation processes.

In the Response to Applicant's Remarks section of the Final Office Action, the Patent Office lumps this argument with several others and points to the administration server 105, the marketing analysis server 106, or the billing server. However, these elements are more properly characterized as part of the data distributor layer or a higher level of the accounting process as described in Applicant's specification. These servers do not fit within the definition of a flow aggregation process as that term is defined in the specification.

The second element - awaiting an acknowledgment signal - is likewise clearly not taught or suggested by the reference of record. The Patent Office admits that "Reeder does not explicitly indicate the step of awaiting an acknowledgment signal from the flow aggregation

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process. . ." much less awaiting an acknowledgment signal from both the processes. The Patent Office then states "Reeder implicitly indicates the step of once the event collector 102 has gathered event object files they are typically communicated to another server...which is readable as awaiting an acknowledgment signal from the flow aggregation process that the flow aggregation process received the accounting records before discarding the accounting records sent to the flow aggregation process." This assertion is not true. There is no two way communication back to the data collectors from the event collector (assumed, without admission, to be the equivalent of the claimed flow aggregation process for the sake of the argument), and thus, the claim element is not taught or suggested.

Claims 3-9 depend from claim 1. If claim 1 is not obvious, claims 3-9, which depend therefrom, cannot be obvious. Claim 4 deserves special mention because it claims the redundancy of the second flow aggregation process, and particularly using the accounting reports sent to the second flow aggregation process when there is an error with the first flow aggregation process. The Patent Office has ignored the second step of the claim wherein the aggregate reports are sent from the second flow aggregation process when an error is reported. Absent a teaching or suggestion of this element, claim 4 is independently patentable.

#### **Claims 2 and 10-17**

Claim 2 is analogous to claim 1 in relevant part, although characterized by being a system claim rather than a method claim. In particular, claim 2 claims a first and second flow aggregation process and that the data collectors do not dispose of the collected data until after they have received an acknowledgment signal from the flow aggregation processes. As explained above, these elements are not taught or suggested by the reference of record, and thus, the claim is not obvious in light thereof.

Claims 10-17 depend from claim 2 and are allowable for the same reasons that claim 2 is allowable. Claim 11 is meritorious of special mention as being the claim analogous to claim 4, and thus independently patentable.

#### **Claims 18-23**

Claim 18 claims a computer program product that "transmit[s] the accounting records to first and second flow aggregation processes...and await[s] an acknowledgment signal from the first flow aggregation process before discarding the accounting records. . . ." As explained

above, these two elements are not taught or suggested by the reference, and the claim is not obvious.

Claims 19-23 depend from allowable claim 18 and are patentable for the same reason.

#### Conclusion

When the terms are given a reasonable interpretation, or the definition provided in the specification is given its proper weight, the reference does not teach or suggest all of the claim elements, and thus a *prima facie* case of obviousness has not been made. Thus, claims 1-23 are in a condition for allowance, and Applicant earnestly solicits a Notice of Allowability at the Examiner's earliest convenience.

Please direct all future correspondence to the address listed below. A change of correspondence form and associated power of attorney are hereby submitted for the examiner's convenience.

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**VERSION WITH MARKINGS TO SHOW CHANGES MADE**

**In the specification:**

Please replace the paragraph beginning on page 1, line 5, with the following rewritten paragraph:

-- Data collection systems are used to collect information from network traffic flow on a network. These data collection systems are [design] designed to capture one type of network traffic from one source type and [delivery] deliver the data to one application type such as a billing application.--.

Please replace the paragraph beginning on page 6, line 13, with the following rewritten paragraph:

-- The accounting process 14 enables users such as an Enterprise or an Internet Service Provider to maintain an existing accounting configuration. Information sources can include network traffic flow, RADIUS accounting data, RMON/RMON2 data, SNMP-based data, and other sources of network usage data. The accounting process 14 collects data via the data collector layer 16 from multiple disparate sources and produces a new type of composite records. These new composite records [results is] result in new information which provides a source for network accounting, billing, management, capacity planning, and so forth.--

Please replace the paragraph beginning on page 7, line 4, with the following rewritten paragraph:

-- Referring now to FIG. 2, the equipment interface layer 16 of the accounting process 14 includes various equipment interfaces 42a-[42i] 42c which are, respectively, an interface 42a for the router/switch 12a, an interface 42b for the cable/modem head end 12b, and an interface 42c for the flow probe 12c. The equipment interface layer 16 also includes additional interfaces such as an interface [12d] 42d for a remote access concentrator 12d, an interface [12e] 42e for an Extranet switch 12e, an interface 42f for a DNS server 12f, and an interface 42g for a RADIUS server 12g. The equipment interface can have additional interfaces that can be specified, as new equipment is added. The interfaces 42a-42g can be developed by an interface toolkit 44. The

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interface toolkit 44 permits a user to construct a new equipment interface type to couple the accounting process 14 to a new equipment source type.--.

Please replace the paragraph beginning on page 13, line 12, with the following rewritten paragraph:

-- In this case of the host connected to the port, or a router or some other device being connected to the port, there is no other connection that the host, router or other device is aware of other than the entire network. This is an example of a "connectionless [connectless] oriented" protocol. A data collector 52 can be disposed in the network in a path between the entities "A" and "B", such that the data collector 52 monitors some of the packets that comprise a flow between "A" and "B." As a single point monitor, the data collector 52 has no concept that there are two ends communicating. The data collector 52 identifies these entities "A" and "B" in various NARs produced by the data collector 52. At a later stage in the processing, either in the data collector 52 or elsewhere in the accounting process 14 the NARs are correlated so that the NARs or some aggregated NAR produced by the data collector 52 or the rest of the accounting process 14 can be associated with the accountable entities "A" and "B" to thus identify a connection between entities "A" and "B."--.

**In the claims:**

Please amend claims 3-5, as follows:

3. (once amended) The method of claim [2] 1 wherein if the data collector determines that the flow aggregation process is not operating, the method further comprises:

continuing to collect and store accounting records from the network device for future transmission to that flow aggregation process.

4. (once amended) The method of claim [2] 1 wherein if the data collector does not receive an acknowledgement signal in response to transmitting the records to the flow aggregation process, the method further comprises:

determining an error relating to the first flow aggregation process; and

causing aggregate reports from the second flow aggregation process to be sent to the accounting module in place of the aggregate reports from the first flow aggregation process.

5. (once amended) The method of claim [2] 1 wherein the data collector produces network accounting records (NARs) from collected data.

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